

iMAGiNE!
YELLOWSTONE

Young Artists Celebrate Our First National Park

In this book young artist-explorers reveal the multi-faceted and incomparable character of Yellowstone National Park. Brought together as a panoramic view are some of the riveting creations shown in iMAGiNE! Yellowstone art exhibits between 1988 and 1995.

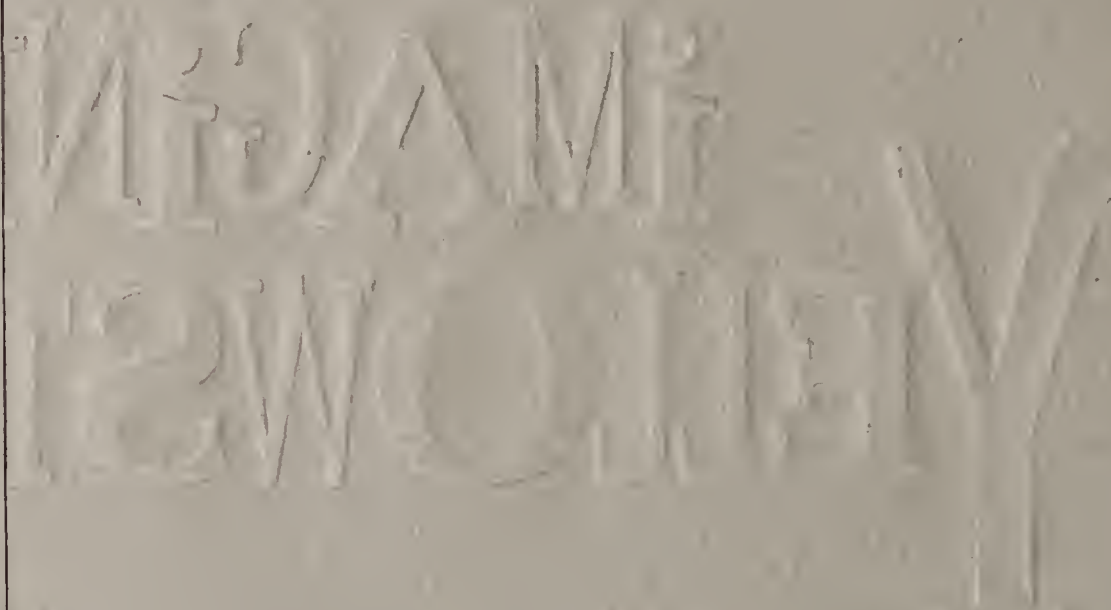
Participating teachers and students heard about the first iMAGiNE! Yellowstone exhibit just weeks before the 1988 fire season began. By its autumn opening, what was originally conceived as a one year celebration of Yellowstone through student art and writing had become a forum for young people's perceptions of wildfire.

Building on the popularity of this show, the iMAGiNE! Yellowstone idea grew into an annual juried exhibit intended to focus public attention on Yellowstone themes and issues. In a nationwide response, some 3,500 young artists opened their audience's eyes over the course of six exhibits. Some of their pieces captured the primal howls of wolves, some the life pulse of geysers. Still others expressed keen insights into national parks, ecosystems, and endangered species. Together, they continue to breathe their makers' reverence for places and things that are wild.

The iMAGiNE! Yellowstone program sought to convey the values our national parks represent by encouraging students to discover the natural world through personal, interdisciplinary pathways. New exhibits grew out of exhibits past. Educational outreach materials introduced themes by weaving current scientific research and political views with historically significant artistic interpretations. Students would then unleash their own aesthetic ingenuity.

Because themes interrelated, subjects often surfaced in several exhibits. You will find that this book, rather than being a chronological documentary of the exhibits below, is a mosaic of student art set in swirling narrative. Essays connecting some of Yellowstone's most compelling stories flow around young artists' creations like water over gemstones.

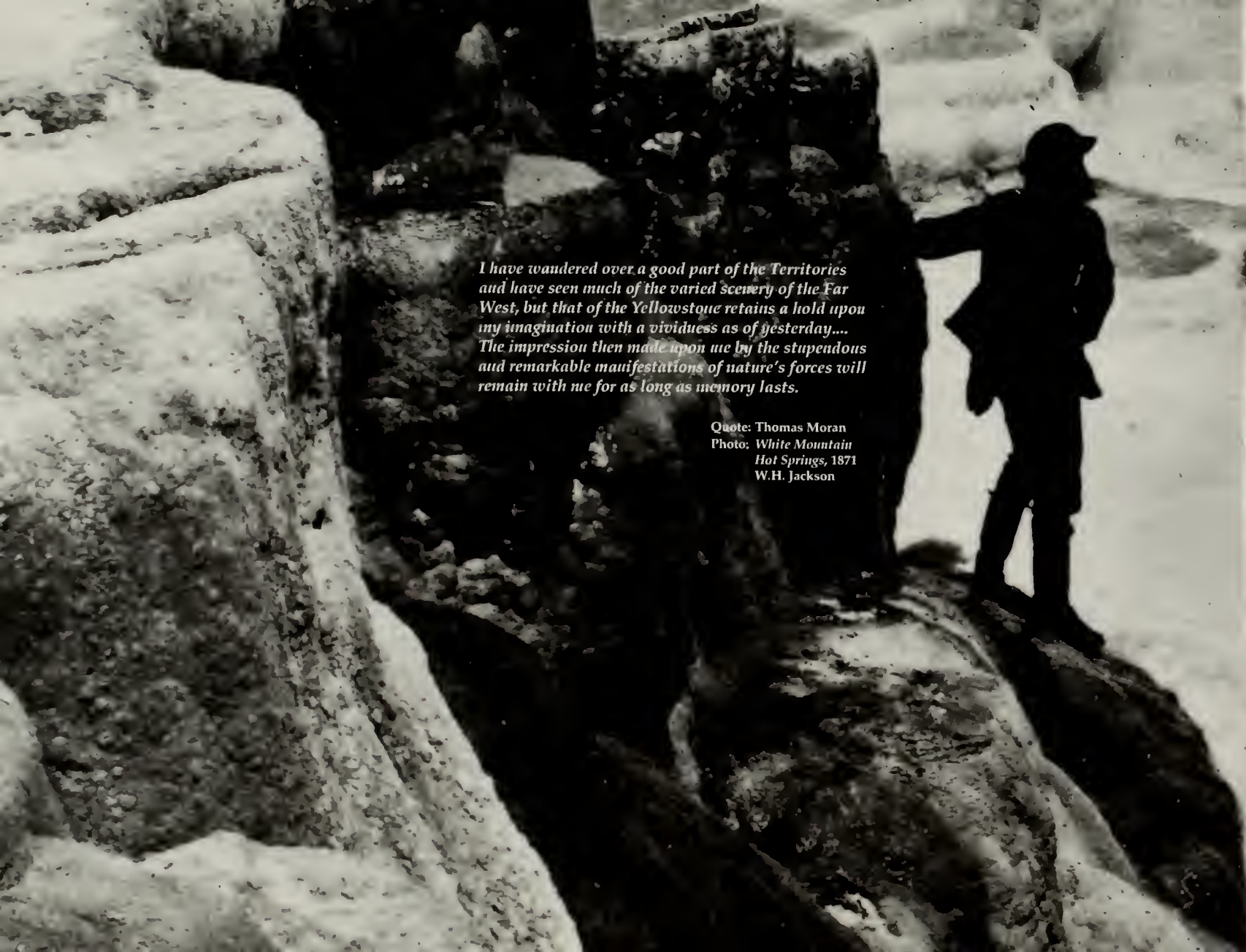
- 1988-89 iMAGiNE! Yellowstone
- 1990 The Wolf
- 1991 Celebrating Our Parks
- 1992 Wild Things Are Welcome Here!
- 1993 The Greater Yellowstone Ecosystem
- 1994 From Geology to Landscape
- 1995 Endangered Species





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*I have wandered over a good part of the Territories
and have seen much of the varied scenery of the Far
West, but that of the Yellowstone retains a hold upon
my imagination with a vividness as of yesterday....
The impression then made upon me by the stupendous
and remarkable manifestations of nature's forces will
remain with me for as long as memory lasts.*

Quote: Thomas Moran
Photo: White Mountain
Hot Springs, 1871
W.H. Jackson

IMAGINE! YELLOWSTONE

Young Artists Celebrate Our First National Park

a selection of award-winning art and writing
created by students from across America

written and designed by
David Cowan, Park Ranger-Naturalist

published by The Yellowstone Association
in cooperation with the National Park Service

Contents

Preface	1
Foreword	2
Introduction	3
Fire	5
Geology/Landscape	9
National Parks	15
Wild Things	21
Greater Yellowstone	25
Endangered Species	31
Wolves	35
Afterword	41

First Printing: April, 1996
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ISBN 0-934948-01-1



Deer Earth
silkscreen, 1991
Cecile Haggerty
age 17
Montana

Preface

In the spring of 1988, park Chief Naturalist George Robinson came up with the idea of sponsoring a display of children's art and writing in Yellowstone. "We need a *children's* exhibit," he proclaimed, and that meant that George had discovered yet another way to weave the wonder of Yellowstone into the lives of kids. What was originally conceived as a one year celebration of Yellowstone became a significant forum for young people's ideas, emotions, and impressions.

A spirit of collaboration underlaid iMAGiNE! **Yellowstone's** success from the beginning: students creating together; teachers of disparate subjects developing interdisciplinary approaches; education and museum professionals volunteering to jury student entries and select scholarship winners; and private organizations joining the National Park Service to fund and display exhibits, first in Yellowstone visitor centers, and then in venues outside the park.

Breathing life into the iMAGiNE! **Yellowstone** program was the easy part; what could be more enjoyable and less controversial than an exhibit of art by children about nature? Paying for its oxygen was another story. Thanks must therefore go to all the individuals and organizations who together created iMAGiNE! **Yellowstone**.

First, the program would not have existed without the thousands of students who gave it life and purpose. It is the generous sharing of their works that has made this book possible. Nor would it have existed without the unselfish diligence of hundreds of art, writing, and science

teachers who encouraged student involvement and fostered an appreciation of Yellowstone.

The Greater Yellowstone Coalition, Defenders of Wildlife, National Park Foundation, Yellowstone Association, and Chip Davis Fire Recovery Fund contributed vital financial support. The Denver Museum of Natural History, Cox Arboretum in Dayton, Kansas Teachers Association, Museum of the Rockies in Bozeman, Greater Yellowstone Coalition, and Idaho Falls *Post Register* furnished exhibition venues in addition to those in Yellowstone National Park.

Bob Barbee, former park Superintendent, provided the setting by boldly defending the arts in the park, and former Chief Naturalist George Robinson created the atmosphere by understanding that environmental education can be taught through a wide range of pathways.

Special thanks must go to Hope and Bob Stevens of the Fanwood Foundation for their steady patronage, and a posthumous thanks to Thomas Moran, artist-explorer extraordinaire, for his guiding spirit. Most of all, we owe a debt of gratitude to Yellowstone's own Ranger-Naturalist David Cowan—artist and visionary—an individual who to a remarkable degree sees Yellowstone with the eye of the heart. He, more than any other, nurtured the fledgling dream of iMAGiNE! **Yellowstone** into a compelling reality.

As today's world rushes around us it is crucial to take time to visit parks. Equally important is the art of envisioning these places, imagining what they have been and might become.

Ronald G. Thoman
Chief Naturalist
Yellowstone Park



Hold On!

oil pastel, 1992
Emmett Hasler
age 17
Montana

Foreword

I first heard of the iMAGiNE!Yellowstone program in the fall of 1989 when a brochure from Yellowstone ranger David Cowan, arrived in my school mailbox. The letter invited my students to create original artwork for an exhibit that would be entitled *The Wolf*. As a teacher of the visual arts, I am flooded with advertisements for poster and coloring contests and was tempted to toss the pamphlet. But iMAGiNE!Yellowstone caught my interest. It was different.

The exhibit had the potential to provide avenues that might transport my students throughout the school curriculum. Biology, earth science, ecology, history, agriculture, archaeology, mythology, and literature could all be tied to this seemingly simple, yet emotionally complex, subject. The wolf theme motivated students to examine value systems, ethics, politics, and environmental issues, as well as their own personal feelings about wildlife and wilderness settings. In short, I could see that iMAGiNE!Yellowstone challenged students to do anything *but* stay neatly between the lines.

In the high-tech, fast-paced world in which we live, the arts are often considered frills—somehow expendable, separate from our daily lives, and unimportant to the education of our children. However, the arts teach skills that are essential in today's world.

Unique among academic subjects, the arts involve the whole student, integrating the head, the heart, and the hands. They expand and refine students' imaginations while developing their critical thinking skills. The arts train students to make decisions and to solve problems in differing ways.

Students are provided the conceptual framework necessary to cope with ambiguity in situations where there is no right or wrong answer and where there are several ways to arrive at a solution. The arts take young people beyond casual observation, helping them to truly *see* the world, and encouraging them to imagine how it might be different. For many students, the arts offer new pathways of learning.

Beginning with *The Wolf* exhibit, and in the ensuing years and themes, iMAGiNE!Yellowstone sparked disciplined inquiry and cultivated interdisciplinary ties throughout the curriculum for my art students. They gained fresh insights into the rich bounty that our national parks offer and a new respect for the complicated environmental issues that will face them as stewards of these natural treasures.

Creating works of art based upon what they had learned, imagined, and felt in their hearts, and then having their individual expressions displayed for the world to see and contemplate, instilled in my kids a heightened sense of accomplishment and self-worth.

The incredible beauty and power of Yellowstone that has inspired artists throughout the ages had the same capacity to move my students to create compelling, insightful images. In many, it encouraged what may be a lifelong relationship with the park, wildlife, and the natural environment.

Pamela Kraft
Art Teacher
Encampment, Wyoming



Untitled
oil pastel, 1991
Ranie Fogelson
age 14
Montana

Introduction

Throughout history nature has inspired artists. Their images of landscapes and wildlife pervade our lives, captivating our imaginations. We are moved by the beauty represented and the ideas and emotions art evokes. As true of today's art as that of the past, the portrayal of nature's endless facets has relied as much on things artists actually see as what they think, feel, and need to communicate.

Art can capture the spirit of times and places, hinting at new ways of perceiving current issues. It can document our changing planet but just as importantly, art can preserve artists' *impressions*, thus creating records of a society's evolving perception of the natural environment.

The way we see and understand Yellowstone has, in large measure, grown out of the ways artists of the past have visualized nature. Beginning in the early 19th century, painters began to view American landscapes as more than mere backdrops to notable human events. America, they discovered, had matchless displays of natural beauty worthy of focused attention in their own right.

For generations, prolific oral traditions wove Native American life into Yellowstone's fabric of wildlife and landscapes. Fanciful yarns spun by mountain men like Jim Bridger helped conjure a Yellowstone of mythical stature. And works by visionary artist-explorers like Thomas Moran and William Jackson captured the sublime character



Touch of Death
pencil, 1994
Dan Lewis, age 17
Alaska

of the land and served as documents that promoted the value of preservation. For as long as people have lived in the region, artists have expressed the wonder of Yellowstone through their art.

The extraordinary landscapes of the West—so inconceivable just a century ago—are now firmly established in our society's imagination. Today, it is imperative that environmentally concerned artists push beyond worn documentary styles and give aesthetic form to their most visceral insights. As interpreters of nature, they must continue to open our minds to what is sensed, but unseen, and illuminate Yellowstone's past while helping us imagine its future.

In the spirit of Moran, young artists here enlarge our perception of Yellowstone. This book celebrates some of the inspirational creations shown in iMAGiNE!Yellowstone exhibits beginning in 1988. Come experience Yellowstone with wide-open eyes. Hear the beat of its wild song, sense the fire in its belly, and let your imagination soar!

Wildfire
oil, 1992
Ryan Davies
age 18
Montana



Forever Scarring
mixed media, 1994
Kelly Grant
age 18
Alaska

The black trees were burnt
The lodgepoles were burnt to twigs
Ashes on our shoes

Yellowstone Haiku
1988
Chris Hess, age 14
Wyoming



Night Watch
oil pastel, 1992
Jessica Irvine
age 16
Wyoming

Color of Renewal

Born out of the Yellowstone fires of 1988, the first iMAGiNE!Yellowstone exhibit was a testament to our primal, yet ambiguous, relationship to fire. Although fire helped shape the Yellowstone landscapes that generations of visitors have cherished, few could accept the abrupt changes brought on by the conflagrations of 1988. Nor could they immediately appreciate the renewed life already pulsing through Yellowstone.

It was Prometheus, the mythical Greek Titan, who, after stealing a thunderbolt from Zeus, first presented humans with the knowledge of fire's benefits versus its liabilities. When humans captured fire tens of thousands of years ago, a pact was formed between fire and fire wielder.

Controlled use of fire enabled humans to expand across the globe. Fire gave sight in the dark of caves, warmth during the cold of winter, and a means for selectively hunting game and eliminating competitors. The mystery of fire's existence and its power to transform has stirred our imaginations for millenia. Why then, during the summer of 1988, were the benefits of fire to Yellowstone's wildlife almost universally unrecognized?

Shaping the Landscape

The first explorers to the Yellowstone country found landscapes largely fashioned by seasonal lightning storms and intentional burning by native peoples. Although volcanic and glacial activity had repeatedly altered Yellowstone's surface, new fire-related plant communities would develop soon after.



Beginning some 12,000 years ago, deliberate cyclical burning by Native Americans encouraged open meadows and savannah over encroaching forests. Fires of this kind perpetuated the pastorage that favored grazing animals like bison and elk, and thus preserved the nomadic hunting and herding cultures that depended on them.

What followed the westward march of European society, however, was its enduring bias against the ecological advantages of fire. Fire was perceived to be destructive of life and resources. It was a hindrance to progress that was to be fought and subdued.

Beginning with Army administration of the park in 1886, Yellowstone wildfires, both lightning and human-caused, were vigorously suppressed wherever possible. This management policy prevailed for decades, as federal agencies wove systematic fire control into their missions as stewards of public lands. Unnoticed during the century of fire fighting and manipulative fire prevention was that the forests of the mountain West had adapted to and thrived for hundreds of millions of years in a fire environment.

Adaptive Vegetation

In the arid, high altitude West fire is a primary agent of change. It recycles entire plant communities, returning nutrients to the soil and exposing the ground to sunlight. Unlike the rapid decomposition of organic matter occurring in warm, humid climates, rotting by bacteria and fungi takes decades in the Rockies. So, periodic fire helps keep the cycle of growth moving from mature, late successional vegetation to early pioneering plants. One outcome is that a greater diversity of plants and animals is able to exist in the early stages of forest regeneration.

By the 1940s plant ecologists began to understand the critical role fire plays: wildfire and western landscapes had largely defined and regulated one another. Along with soil and climate, the repeated action of fire determined the complexity and character of landscape cover which, as a sure-footed dance partner, in turn directed the steps of fire.

In Yellowstone, grass, shrub, and tree species have developed myriad strategies to survive and encourage fire. These species not only tolerate fire; many require it for propagation. Lodgepole pine seedlings, for instance, flourish after a fire's heat has unlocked the seeds in the specialized serotinous cones of parent trees. Thick, corky bark protects mature Douglas Fir from killing heat and flames. Food-storing root systems, insulated by soil layers, quickly support regeneration of grass, rabbitbrush, willow, and aspen.

The system is self-perpetuating and reinforcing. Plant species that are adapted to this fire environment create conditions that determine fire's intensity and frequency and therefore favor their own strategy of propagation—so long as naturally caused fires are allowed to burn naturally.

In recent decades, fire management policy has reflected a better understanding of fire/plant ecology. In park and wilderness areas plans have been designed to allow fire a continuing role in shaping plant and animal communities—the so-called “natural fire” policy. Each plan outlines conditions for tolerating or suppressing naturally caused fires. Historical research illustrates how most fires in the Yellowstone region predictably sputtered and then extinguished under typical patterns of forest fuels and weather. These fires averaged only a few acres in extent but over many years they created a mosaic of vegetation types and ages, thereby increasing habitat diversity.



Burnt Night
chalk, 1991
Meagan McPhie
age 12
Montana

*The red flame is out
Sun rises to a black sky
Spring will come again*

Yellowstone Haiku
1988
Marne Martin, age 14
Wyoming

Devastation
chalk, 1991
Skyler Brickley
age 13
Montana



Where the Green Grows
pencil, 1993
Jessica Blankenship
age 14, Texas



Fire and Elk
mixed media, 1988
Rachel Alter, age 14
Idaho

Summer of 1988



Just as Yellowstone's landscapes evolved with fire, so fire, once ignited, adapts to the landscape. When there is scant precipitation and hurricane-force winds, fire has incentive.

Where layers of dry twigs and needles have accumulated, fire has a fuel source. When storm systems repeatedly deliver lightning strikes with no quenching rain, fire is given birth. These conditions predominated in Yellowstone by the summer of 1988. It was a setting in which fire would have its way.

Fuel, drought, weather, and lightning combined to create a momentous event. As the fires ignited and spread, our awareness of them grew. We were humbled by our inability to control them. Toward summer's end it was as though the fires had become huge living organisms, steadily sucking oxygen, engulfing forests, and invoking their own weather maelstrom. It was all we could do to try to protect homes and historic structures while keeping firefighters and park visitors out of the paths of these seemingly insatiable beings.

During Yellowstone's summer of fire, the image of ruin was foremost in the public's mind. Now look below and beyond the charred snags. In many places you see luxuriant growth. You realize that those same fires that ravaged Yellowstone stimulated an explosion of life. Listen to the busy tapping of woodpeckers. Watch the colors blend from pink to violet to yellow as shooting stars take backstage to larkspur, then balsamroot. Slowly over the years lodgepole seedlings push to knee high and beyond, and a new understanding takes hold: fire is neither good nor bad, simply one way nature renews itself.



Lithospheric Plates
ceramic & paint, 1994
Rhonda Siford, age 15
Wyoming

*Plates collided.
Pangaea split.
Continents drifted
over time creating a dome
that grew higher and higher
above a hot spot within the earth.
As snow falls on its summit,
the plates collide again.
The earth quivers.
You hear a rumble—a warning to run.
You don't. Instead, you stand there
in suspense, waiting for the mound
to blow its cover.
And then,
and then,
and then,
It EXPLODES!
You see a black cloud blanket
surrounding its peak.
Then you see lava coming toward you—
a river of molten rock flowing in
glacial crevices.
You run. Let's see what else blows....
Nothing happens.
You realize you should have taken
the hint: RUN!!*

A Warning to Run
1994
Summer Mack
age 15
Louisiana



Yellowstone Blast
tempera, 1994
Bobbie Finn
Age 10
Wyoming

Drama of Cyclic Upheaval

Fire above; fire below. Fire from the sky and human hands may have reformed Yellowstone's vegetation each time glaciers scraped the land to rock bone; but fire from the inner earth forged its rock skeleton. At the heart of Yellowstone is volcanism.

Hot Spot and Caldera

Yellowstone's dynamic temperament is rooted in the area's most recent period of volcanism. Just a few miles separate its picturesque surface from a mire of molten rock below. Welling from a source of concentrated heat deep in our planet's interior, a plume of magma has pushed through the earth's mantle to its crustal rind. Here, it is known as the Yellowstone hot spot and linked to it are some of the most massive volcanic explosions our planet has experienced.

The earth's crust is a puzzle of moving pieces and convulsive jig-saw seams. As the North American piece drifts, the hot spot melts continental rock sliding over it as if it were an immense blowtorch. The melt accumulates and grows into a volcano.

The most recent volcano, some 600,000 years ago, dwarfed the power of the Mount St. Helens eruption a thousandfold! As magma from the hot spot expanded, rigid crust above began to bulge. No longer able to stretch, the rock fractured, tapping pressurized gasses that instantly blasted fiery clouds of ash across the land.

This blowout of debris quickly emptied the volcano's chambers below and, with unsupported rock ceilings, they collapsed. A section of the Yellowstone plateau slumped to form a huge crater, or caldera, that could have swallowed the state of Rhode Island. The eruption blew ash as far away as Kansas and surely disrupted atmospheric conditions on a global scale.

Geologic Smorgasbord

Expedition scientists witnessing the geologic upheaval of Yellowstone in the mid-1800s could hardly have imagined its formative history. Tools like satellite remote sensors and electron microscopes have now opened our eyes to new ways of interpreting its surface.

Because processes that shape the earth's topography usually appear to be painstakingly slow, we tend to see rocks and landscapes as permanent fixtures. But if we look closely, clues help our imaginations piece together an epic drama; eons become blinks in a geologist's eye. If rocks, today, cool from liquid, become buried, and are thrust into mountain ranges that weather into grains of sand, we figure they did so in the past. Suddenly, we see the earth's crust being pushed, swallowed, and reformed into continents and ocean basins.

Scattered across the globe are snippets of this change: an earthquake in China, a landslide in Peru, a volcano in the Phillipines. But in Yellowstone, we view the planet seemingly in its most volatile state, where quakes occur daily, and rock is continuously remade and recycled. Here, the stories of many great geologic events coincide.

Celebrating Our Parks
chalk, 1991
Adil Haq, age 10
New York

Turbulent Then Calm

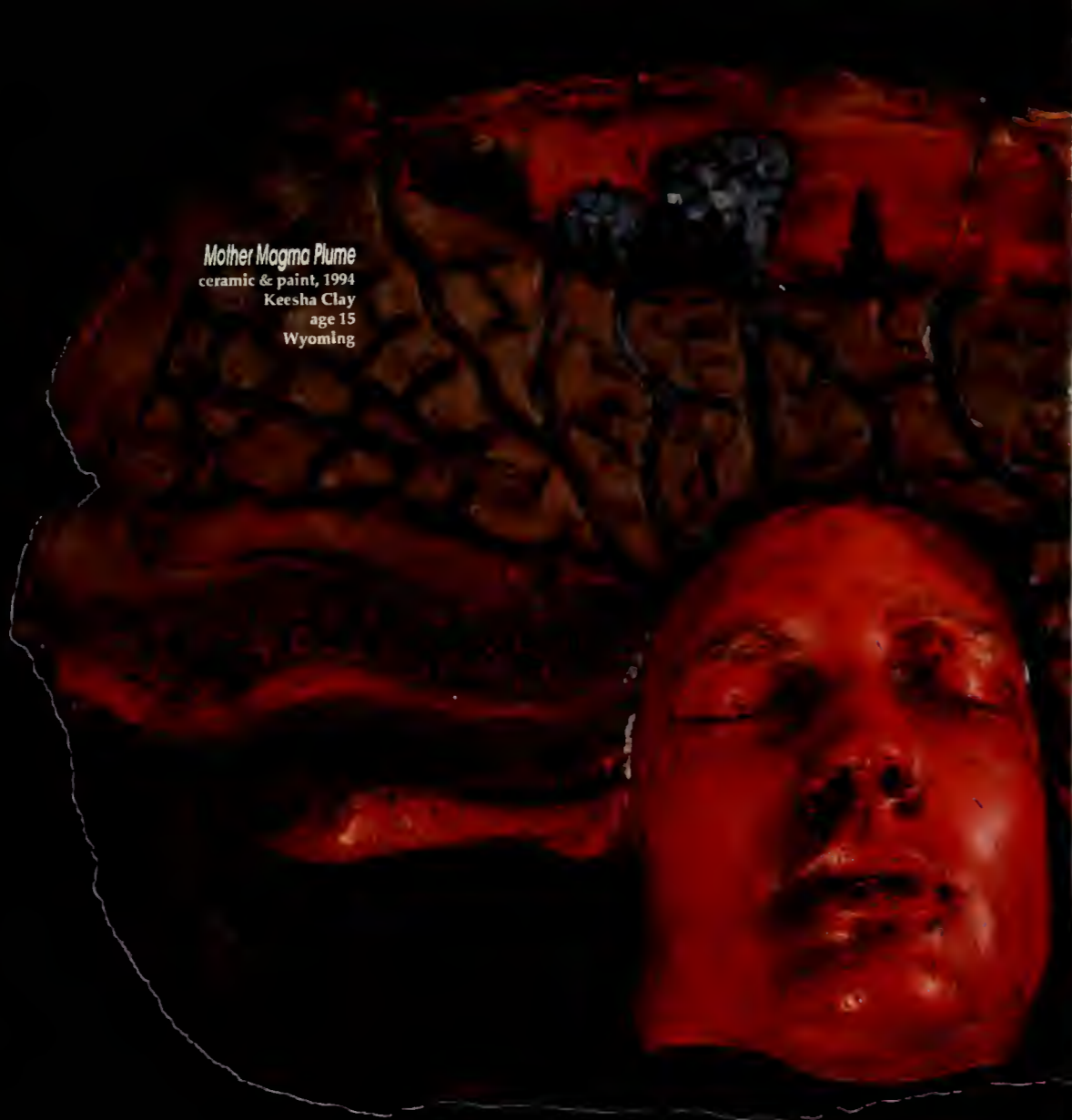
Hundreds of millions of years before caldera-forming volcanoes, the Yellowstone region was submerged beneath a subtropical sea. Near the swampy sea dinosaurs migrated, raised their young, and died, their skeletons here and there preserved in sedimentary rock. The same veneer of limestone, made of the accumulated shells and skeletons of marine organisms, is today transported to the surface by hot, acidic water at Mammoth Hot Springs.

Toward the end of the Mesozoic Era this relatively stable environment came unhinged when ocean floor crust undercut western North America. The land compressed, folding in some places and, in others, buckling and breaking into slabs of rock that piggy-backed on each other like overlapping roof shingles.

The ocean plate plunged farthest under the continent beneath the Yellowstone region. Here, globules of melted rock rose like hot air balloons as the undercutting plate reached tremendous temperature and pressure. These plutons of magma melted swaths through overlying rock and eventually burst onto the surface as a chain of volcanoes similar to the Cascades. Buried in mudslides and ash-flows on this volcanic range are some of the petrified remnants of exotic subtropical forests.

As if it were on a conveyor belt, the subducting ocean plate had almost entirely merged with North America when the crunching impact ceased. Yellowstone again became quiet. Briefly. Within tens of millions of years, another center of heat began to stretch the southwestern corner of the continent. The stretching continues today, shoving up jagged mountain ranges as valleys slide into the region's existing terrain.

Mother Magma Plume
ceramic & paint, 1994
Keesha Clay
age 15
Wyoming



Simple Mist
chalk, 1993
Holly Spriggs
age 13
Wyoming

Hydrothermal Activity
mixed media, 1994
Jessi Steward
age 16
Wyoming



In the Beginning
pencil, 1994
Carole White
age 13
Texas



Thermal Basin
acrylic, 1993
Claire Cahill
age 15
New York



Minerva Terrace
paper, 1994
Sarah Olson
age 16
Montana



Deceptive Tranquility

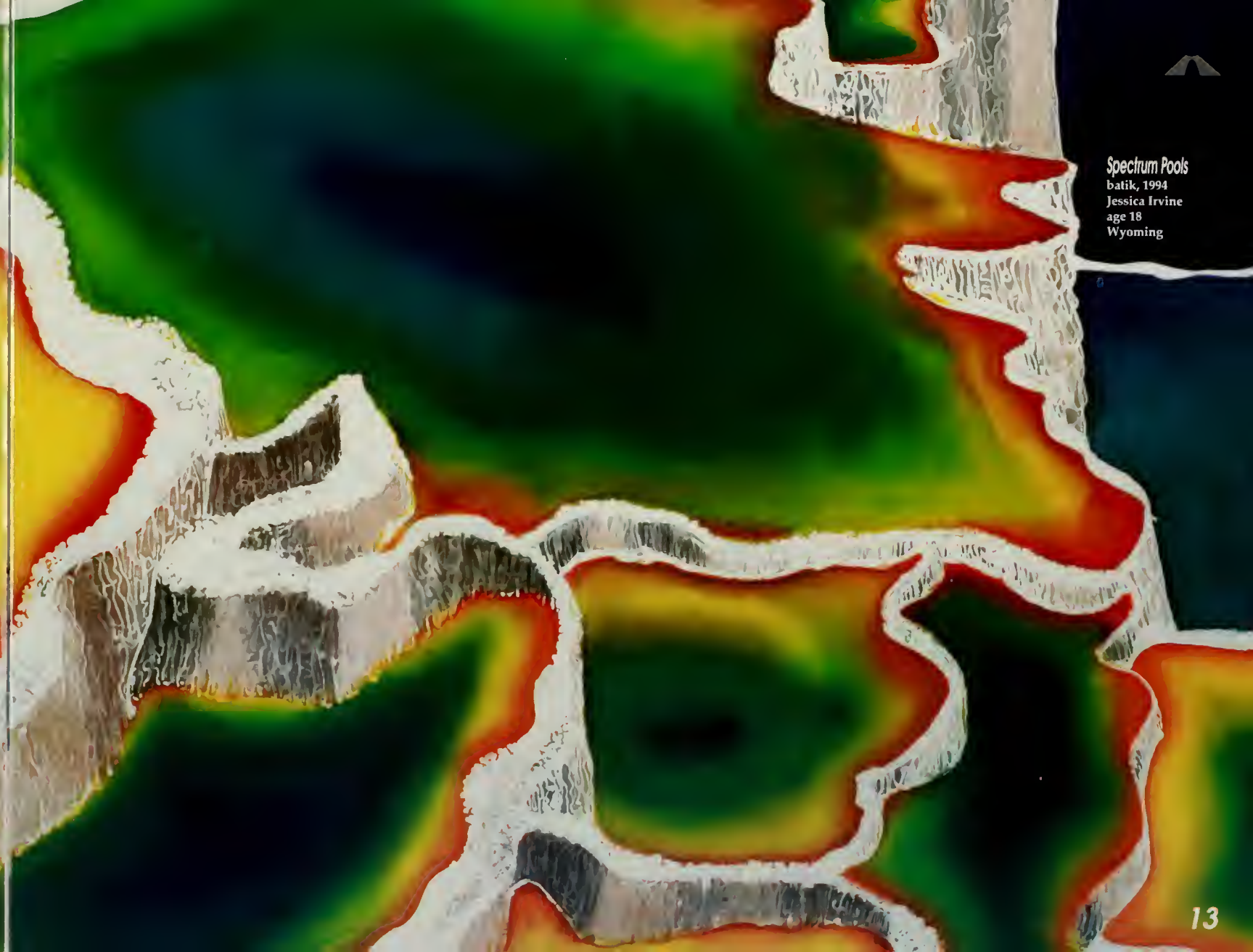
After the caldera-forming explosion, lava flowed over Yellowstone like decorations on a richly textured cake. But no sooner was the land built up than water and ice wore it down. Rivers chiseled deep canyons and glacial lobes shaved mountains like gigantic pencil sharpeners. Catastrophic floods, earthquakes, and hydrothermal activity ceaselessly altered the scene.

The surface attractions that amaze us today—seething hot springs, mudpots, and the riot of color in Yellowstone's Grand Canyon—would not exist but for the recent volcanism. Driven by the tremendous heat of the magma plume, new hydrothermal features burst to life near fractures that are scars from the area's caldera- and mountain-building episodes. Water circulates through these plumbing systems, is furnace heated, rises, and then surfaces as a galaxy of hydrothermal expressions.

What should we make of Yellowstone's dynamic character? How should we interpret the series of buried calderas that begins in Yellowstone and extends into southern Idaho as a seam of increasingly ancient volcanoes? The most recent caldera-forming eruptions occurred in cycles of some 600,000 years. Since the last eruption wracked the Yellowstone country roughly that long ago, could these calderas be locations of ancestral Yellowstone, and could today's volatility be a harbinger of an impending volcano?

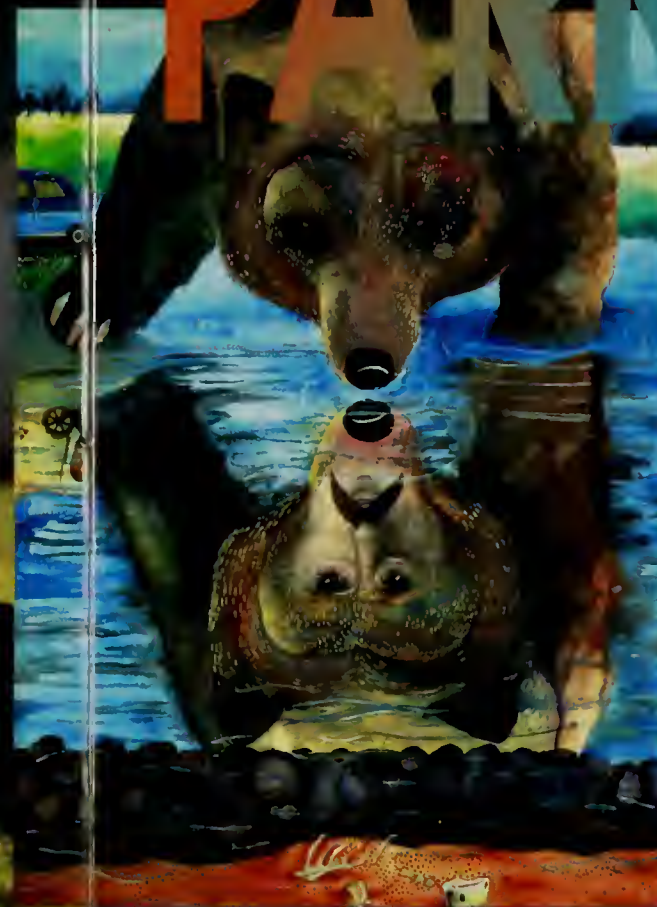
The Yellowstone landscape of picturesque geysers, beautiful lakes, and sublime canyons are sensational phrases in a deceptively tranquil composition. So that this ever-rearranging symphony of geologic spectacle might be preserved for future generations to enjoy and learn from, Yellowstone was established as the world's first national park.

Spectrum Pools
batik, 1994
Jessica Irvine
age 18
Wyoming





Sun Tracks
oil, 1991
Katrin Peterson, age 16
Washington



Teddy's Vision
tempera, 1994
Shanna Rabalais
age 13
Texas

National PARKS

Reflecting Our Heritage

Who in the mid-1800s could have imagined a place like Yellowstone? For decades trappers and mountain men had spread stories about a netherworld high in the Northern Rockies. There, they claimed to have cooked huge trout in sulfurous pools and seen stone trees standing taller than any man. But to Eastern society the tales were outright fabrications. Such a place did not exist in the civilized imagination.

Within a few decades, this place would converge with an idea. Each had glowed brightly, but separately, in the American imagination: the national park idea as the pinnacle of meditation on nature, and the place known by the mountain men as the Yellowstone.

Artist-Explorers

The ancestry of national parks bridges centuries and continents. Pleasure gardens of medieval European aristocrats and village commons of New England colonists exemplified the need for natural places that cut across nationality and social class. In the early 1800s, romantic philosophers and writers including Emerson, Cooper, and Thoreau extolled the virtues of wild America. Their Deist and Transcendentalist movements sought to illuminate theological aspects of nature. Wrote Thoreau: "A town is saved by the woods and swamps that surround it, for in wildness is the preservation of the world."

These writers had an impact on the visual artists of the day. Beginning with the Hudson River School, painters like Thomas Cole experienced natural scenes with a deliberate emphasis on



spiritual intuition. To them landscapes revealed divine truth and therefore symbolized moral ideals. Their art was often weighted with nostalgia for the simpler, more serene life before the dawn of the Industrial Age.

George Catlin, a painter who documented native life on the northern plains, nudged the park idea beyond the romantic rhetoric of the early 1830s when he proposed the acquisition of land for a reserve from Mexico to Canada: *"A magnificent park... A nation's park containing man and beast in all the wild freshness of their nature's beauty."*

Also during the 1830s, Alfred Jacob Miller and Karl Bodmer accompanied small expeditions into the Northern Rockies. Miller's paintings of the Wind River country in Wyoming and Bodmer's depictions of Native Americans in the vicinity of modern day Glacier National Park were the first to satisfy eastern society's taste for paintings that illustrated the exotic West.

Despite a conquering impulse that by the 1860s had led surveyors into much of the western wilderness, the country around the headwaters of the Yellowstone River remained *terra incognita*. With the end of the Civil War, however, came renewed energy for western exploration and heightened interest in Yellowstone. During the summer of 1870, the Washburn-Langford-Doane Expedition penetrated Yellowstone's mountain barrier and returned with descriptions as fabulous and seemingly preposterous as those of the fortune hunters who had preceded them.

Moran and Jackson

Based on verbal descriptions and generic field sketches from the Washburn party, a part-time illustrator for *Scribner's Monthly* magazine, named Thomas Moran, created a series of woodcuts for an article titled, "The Wonders of Yellowstone." What Moran created, however, was an image of

Yellowstone's Grand Canyon that looked like a crack in the earth four feet wide by four miles deep and illusions of geysers that resembled scoops of ice cream piled on sheet metal cones.

Moran used his imagination to represent Yellowstone's facets, but even a powerful imagination was no match for the creative genius of the place. With curiosity aroused, Moran had to see this wonderland firsthand. Yellowstone itself would show him outlandish colors, tumultuous geology, and crystalline light beyond anything he had dreamed.

In an attempt to document its incomprehensible features, Ferdinand Hayden, chief government geologist, happened to stage a major expedition into the Yellowstone during the summer of 1871. Hayden assembled a party of topographers, botanists, mineralogists, and dignitaries. With them would ride the official expedition photographer, William Jackson... and Moran.

That summer, Jackson adapted his meticulous photographic process and cumbersome apparatus to Yellowstone's unyielding wilderness, producing a detailed record of its panorama. As a complement, Moran's impressionistic watercolors captured the character of the land, rendering its majestic scale and foreign features in a style more accessible to eastern audiences. The collaboration between these two pioneering artists would have profound effect on the area's future.

Their unprecedented photographs and paintings showed a place wild beyond imagination—a visual testament for an unbelieving public. The images became vital documents in promoting the fledgling park idea. In 1872, Yellowstone became the first place recognized by a national government for its natural values. Its land and resources would be held in trust—unimpaired—for future enjoyment and education.



Bear's Freedom
 prismacolor, 1991
 Malik Dulan
 age 17
 Oklahoma



Layers of the Earth

paper, 1994
Sara Hoover
age 16
Ohio

*Over the beautiful, lush-green land,
Swiftly, quietly, invitation in hand,
A trumpeter swan races through the dusk;
AWAKE! AWAKE!*

*A summons to gather from forest and river,
Elk from the grasslands and owls come hither,
To celebrate Yellowstone: land of our birth;
NEWS! NEWS!*

*With the chatter of squirrels and the bound of a deer,
The call of the moose and the coyotes come near,
The moon and the stars light the way to the party;
COME! COME!*

*O the trees clap their hands and the rocks join in singing,
The geysers erupt and the waterfalls ringing,
All of creation joins in the laughter;
DANCE! DANCE!*

*The squirrels take the roll and call out the names,
Is anyone missing? We can't start the games!
Then a growl is heard at the edge of the clearing;
HUSH! HUSH!*

*Up lumber the grizzly; majestic and kind,
Then a silvery shadow directly behind,
The crowd parts to welcome a wolf pack so weary;
HOME! HOME!*

*The grizzly announces the wolves have come home,
Reunion and laughter light up Yellowstone,
As the sun dawns they give thanks for their homeland.
LIFE! LIFE!*

Yellowstone's Beauty

watercolor, 1991
Brian Minder
age 14
Nebraska



A Celebration

1991
Christopher Miser
age 11
California

Park Values

When Yellowstone National Park was established it was rare for anyone to think of land as having worth in its natural state. The withdrawal of this immense tract from settlement or sale was made, in part, because it held little promise for cultivation and resource development. Few people then could see the tremendous importance that open space and wilderness would have as populations grew and modern societies became increasingly industrialized and cut off from the natural world.

With the impetus provided by the watershed event of 1872, national parks thrived. In the brief century since Yellowstone's establishment, parks have been created, one by one, to celebrate *who* we are, *where* we are, and *how* we got here. What we have chosen to preserve and protect in parks is indicative of what we value as a nation.

Parks preserve our heritage of landscapes and accomplishments. They reflect many of the fundamental values and experiences of American culture. Some parks preserve the record of rapid and violent earth-shaping events while others remind us of the more gradual, but no less provocative, changes that have shaped American society. The evolution of cultures and the diversity of ecosystems, past and present, are preserved for future generations to study and appreciate. As the foremost symbol of natural resources preservation, national parks will be remembered as one of America's most significant contributions to world civilization.

An Evolving Idea

Like the game of baseball, the park movement has taken root in other countries as well, so organizations have risen to encourage international cooperation in conserving nature. In 1972, the World Heritage Committee, offspring of UNESCO, began to institute a legal framework

for protecting places like Yellowstone. The Committee thereby formally recognized the site's irreplaceable value to the global community.

The park also received recognition by another related effort, the Man and Biosphere Program, which hopes to protect exceptional habitat types and their genetic diversity. Yellowstone, as an International Biosphere Reserve, now preserves a vast wilderness of plants and animals native to the Northern Rocky Mountains, and in so doing, serves as a remarkable natural laboratory for scientists, conservationists, and sightseers.

In 1962, following a decade of unprecedented growth in both the park system and its visitation, Secretary of the Interior Stewart Udall called together a special advisory board on Wildlife Management in parks. The commission was to recommend a course that would steer park management into the next century. Its conclusion, the Leopold Report, succinctly stated that artificiality should not be encouraged in parks:

As a primary goal, we would recommend that the biotic associations within each park be maintained, or where necessary recreated, as nearly as possible in the condition that prevailed when the area was first visited by white man. A national park should represent a vignette of primitive America.

Preserving the state of wildness would now be one of management's primary concerns in parks established for their natural values. What originally had been conceived as a pleasuring ground showcasing a novel collection of geologic curiosities now was seen as a sanctuary preserving an equally remarkable array of wildlife.



King of the Mountain
mixed media, 1993
Lisa Bullock
Claire Gilliam
age 12, Montana

A Fish Called Vanda
mixed media, 1991
Melanie Barnes,
Trish Bures,
Dallas Davis,
Jeremy Foreman,
Mandy Little,
Dana Slade,
Michele Speitz
age 12, Colorado



*The scene is like a
Breathless paradise
With a gentle river
Flowing through the land,*

*The taste is like a
Fresh blackberry
That is filled with
Juicy fruit,
That cold refreshing
Gulf of water that rushes
Down your throat,*

*The feeling is like a
River running across
Your hand,*

*The smell is like the
Fresh pine that blows
In the wind,*

*The sound is like the wind
whispering
Your name.*

Yellowstone
1992
Kenichiro Natori
age 11,
Georgia

The Falls
cattle marker, 1994
Paige Saunders
age 12
Montana



Ecosystem At Its Finest
 mixed media, 1993
 Stephen Dibben
 Corey Jensen
 Erin Abernathy
 Kelly Draper
 age 11
 Wyoming

Things

A World Beyond

In a cave near Yellowstone's Lamar River, paleontologists sift through layers of debris that harbor reminders of the park's historic wildlife. Like record folders in a storage locker, the strata preserve the hair, scat, and bones of animals that lived during millenia past. Based on the evidence, we can picture wolves and coyotes caching parts of elk kills or pack-rats archiving samples of the area's other diverse inhabitants. Nothing suggests that humans used the cave. Just imagine an ancient hunter-artist within, summoning the spirits of Yellowstone's wildlife...

Wildlife Art

Those of us accustomed to the amenities of modern urban life can scarcely grasp the purpose for which paleolithic cultures created art. To the cave man, hunting colossal beasts for subsistence was neither sport nor amusement and emulating the abilities of predators while eluding their fangs was serious. We can only imagine how the necessities of survival colored every act with meaning. Including art.

Between the advance and retreat of the last continental glaciers, hunting cultures invented an art of representation; Stone Age humans taught themselves to associate the identity of animals with outward appearances. Slowly at first, and then with growing assurance and facility, the hunter-artist scratched, painted, and carved the world of his experience on cave walls.

Extraordinary powers of observation, memory, and imagination enabled the artist to animate rock surfaces with the forms and details of animals. By the flickering fire of marrow-fat lamps, he drew lines with charcoal, scraped on mineral colors with shredded bone, then blew silhouettes of paint around his hand as a signature and token of authority. The magical power of his art was only as great as its realism. To portray elk, bison, bears, and wolves in a truthful and naturalistic manner was to capture their souls.

Communion Through Art

Of what purpose was a menagerie of images hidden in the bowels of the earth? Surely they were meant to be more than decorations for a dreary setting. Were they fertility signs intended to honor prey while ensuring its abundance? Were they instruments of magical-religious rites by which the makers sought to divine the outcome of the hunt? If the artist believed he could re-create animals through symbolic likenesses then his art had become an act of life-affirming devotion. Animal and artwork were one.

Painted wolves, tempera, 1992, Erin Baldry, age 12, Montana



Who's Wild
 batik, 1992
 Heather Snow
 age 18
 Wyoming





Why do *we* make images of wild life? Do animals inspire us to do so? Like heraldic emblems and tribal totems, many of today's sports mascots symbolize agility, speed, and ferocity—qualities desired in the gaming arena. Maybe we admire these creatures for their physical beauty. Or maybe through art we affirm our kinship with them, entering the dynamic and mysterious world we abandoned eons ago.

Because the lives of wild animals contrast so markedly with our own, artists may replicate them as a rite of protection. Unless we are reminded of their existence often and directly, that which is wild might fade from our care.

Wild animals remain different in a world entirely their own. We may create accurate likenesses but can we ever truly know them? Without the faith and experience that guided the hands of paleolithic artists, how do we breathe life into the

animals of our art? No matter how scientific our approach, might not our images ultimately be as much creations of imagination as reality, expressing less about animals in fact than what we wish them—what we wish ourselves—to be?

Long before plant crops, ordered gardens, and celebrities became the subjects of art, the portrayal of wild animals existed as a powerful spiritual act. What motivates us to represent creatures other than ourselves? The answer may be rooted deep beneath the civilized veneer of our minds, in the bedrock of imagination where all wild things have common origin.



Wolverine in the Wild

batik, 1992
Jason Porter
age 13
Wyoming

Lonesome Wanderer

chalk, 1991
Jacqueline Steele
age 16
Michigan



Mountain Lion
oil pastel, 1992
Audra Pettway
age 15
Arkansas



Winter Spirit
tempera, 1988
Leidy Grandison
age 13
Wyoming

Crystalline,
frozen white eternity
a vacuum space of frozen land
suspended in ice-white stillness
in taciturn trees stand black
sticks whispering softly
their sweet secrets
ice cracks
brown power shoves aside
monstrous
flecks fly white
sight sounds the high tide
flashing fleshy fur
moves on
leaving great tunnels

of soft, white boulder traces
print of nails
pressed untouched
in silence
held suspended
in ethereal sanctity,
white eternity.

Sanctity
1992
Heather Bowden
age 17
New Mexico



Going Home
mixed media, 1992
Julie Thompson
age 13
North Dakota

Nature's Life Support

Late in the winter of 1893-94 two Yellowstone soldiers were patrolling the park's Pelican Valley when a trail of snowshoe tracks led them to a tree bearing the heads of six bison. The two quickly apprehended Cooke City resident Edgar Howell as he was preparing to cut the heads off more freshly slain animals.

The Lacey Act

By coincidence, a small party of wildlife enthusiasts encountered the soldiers as they escorted Howell to the Fort Yellowstone guardhouse. The expedition's sponsor, *Forest and Stream* magazine, had a zealous, conservation-minded correspondent in the group named Emerson Hough.

Hough immediately sent a dispatch recounting the poaching incident. Within two months, the story of Howell and Yellowstone's ill-fated bison galvanized prominent eastern conservationists and lawmakers, stirred public sentiments, and

prompted a vital piece of environmental legislation called the Lacey Act. Thereafter, park officers were authorized to punish misdemeanor offenses, thereby mitigating the market incentives that drove the exploitation of wildlife.

When non-native people ventured onto the prairie 150 years ago they witnessed an astounding scene: millions of bison roamed and foraged the grasslands stretching from Mexico to Canada



and the Mississippi River to the Great Basin. Newcomers and natives, alike, envisioned a limitless supply; why think of conservation and the ecological relationships fusing bison to the fertile prairie? By the 1890s, bison had become the familiar emblem of three state flags and a federal coin, yet they barely escaped extinction by luck. Poaching failed to overtake the few hundred left in remote parks and game preserves.

Without the timely intervention of the two Yellowstone scouts, Howell may well have single-handedly slaughtered the last free-ranging bison herd in this country. Wild bison came that close to extermination. With protection bolstered by the force of the Lacey Act, wild bison would thrive in a microcosm of the Great Plains ecosystem—the park's renowned northern range.

Natural Regulation

By increments, wildlife had finally achieved the protected status given to Yellowstone's geological wonders. Like geysers and canyons, wildlife had become valued as much for scientific and inspirational qualities as utilitarian. Secure and multiplying within park boundaries, bison, like park elk, would become a population reservoir for restoring wild herds in other nature reserves.

Untitled, tempera, 1993, Lu Anderson, Trevor Brown, ages 8 & 14, MT



In the late 1960s, parks instituted a management concept whose intent was to further minimize human impacts on natural processes. As articulated by the Leopold Report, parks would be guided hence by a policy of natural regulation. In theory, bears would forage for natural foods, some lightning-caused fires would burn, and with protection afforded them, native predators would resume the primeval drama of hunting prey species. Now only harsh winters and park roads would affect the numbers and distribution of bison since the wolf, its most significant predator, had been exterminated.

Then, within two decades, bison—symbol of the American West—faced yet another obstacle. At issue this time was its instinctive nomadism because human development outside the park had monopolized much of the animal's historic range. Bison could repopulate and wander but only within the park's artificial boundary.

Beyond Boundaries

No sooner had legislators framed the park in the territories of Wyoming and Montana than its boundary became a source of conflict. The rigid delineations along lines of latitude and longitude enclosed key geologic features but showed little understanding of the ecosystem they overlaid.

During the park's first decade, souvenir seekers degraded many attractions by removing chunks of geyserite, petrified tree, and obsidian. Visitors also continued to subsist on park fish and game as a way of life in a primitive setting. But big-game hunters had the most notorious impact when they decimated popular wildlife. Aroused by the condition of the young park, General Phillip Sheridan, a Civil War hero and avid hunter, decried the inadequacy of Yellowstone's size as a wildlife preserve. In the late 1870s he proposed doubling the park by extending its east margin. But the proposal went nowhere.

Humming in Peace
watercolor, 1992
Brent Fish
age 11
Florida



A Step into the Ecosystem
watercolor & ink, 1993
Cody Bentson
age 13
Wyoming



Wild Flower
papiermâché
& tempera, 1991
Larissa Ault, age 15
Montana



Bear Dancer
prismacolor, 1993
Andy Craver
age 17
Maryland

Why enlarge the park? Unlimited wildlife seemed to fill inexhaustible forest; who could envision a park that would someday be too small to preserve its own biological diversity? Well-equipped expeditions required weeks to loop the Yellowstone plateau on horseback; who could foresee travelers jetting over the park in minutes? The unique waterfalls, canyons, and geysers were now protected; who could imagine that the Yellowstone landmass would inexorably shift over a hot spot, forcing the question of how to protect features when they may ultimately move beyond the park boundary?

Balancing Uses

Over ensuing decades the park's edges were redrawn to reflect the area's watersheds, topography, and wildlife migrations. But in the end the condition of many park attractions hinged on forest reserves (predecessors of national forests) established by executive decree in the wilderness adjacent to the park. Based on the principle of multiple use and sustained yield espoused by professional foresters like Gifford Pinchot, national forests instituted a broad program that included timber and mineral extraction, hunting, fishing, and livestock grazing, as well as recreation and wildlife conservation.

This new philosophy of managed utilitarianism in many respects contradicted the preservation ethos developing in parks, so a split between the two land conservation wings was inevitable. The preservationists, led by John Muir and others, collaborated with the travel industry to promote the establishment of more national parks while commodity developers joined the national forest movement. A mutual boundary was tantamount to a sword drawn across the landscape. Limited communication, coordination, and desire to find common goals prevailed for decades.

Friends
pencil, 1992
Tony Scriver
age 11
New York



Pieces of Tranquility
pencil, 1993
Christina Nixon
age 14
Pennsylvania



All Paths Cross
paper, 1995
Forrest Maclean
age 9
Wyoming



Today we know that park designation does not safeguard nomadic bison or guarantee geyser plumbing. Yellowstone's features are vitally connected to those in surrounding wildlands. Despite their differing missions, present-day administrators of national parks and forests acknowledge the need for cooperation because they share many management goals.

Interconnected...

Embracing the mountain country in and around the park, the Greater Yellowstone Ecosystem is a rich tapestry of wildlife communities, habitat, and the self-sustaining processes that bind them. Like a living organism about the size of West Virginia, the ecosystem breathes, perpetually cycling matter and energy, filtering air, and regulating water. Besides its predominantly wild nature, Greater Yellowstone's topography, vegetation, and geology also distinguish it from surrounding lands. From microorganisms inhabiting acidic springs to bears foraging in alpine meadows, all forms of life within the ecosystem are connected, sometimes in imperceptible ways.

Remarkably, Greater Yellowstone remains home to nearly all the major species that inhabited it in pre-Columbian times. Though human pressures cloud the resilience of some relict populations like arctic grayling, Ross's bentgrass, and grizzly bears, only a viable wolf population is absent. And the gray wolf is currently the subject of an unparalleled reintroduction effort in the park.

Diverse...

Straddling the borders of Wyoming, Montana, and Idaho, the ecosystem puzzle consists of Yellowstone and Grand Teton National Parks, six national forests, three national wildlife refuges, and other federal, state, and private lands. Terrain, habitat, and wildlife types have each been used to define Greater Yellowstone,

one of the largest relatively intact ecosystems remaining in the earth's temperate zones. This quality derives as much from its historical remoteness as from recent collaboration between concerned citizens, private landowners, and government jurisdictions vested with managing its lands.

Balanced...

Greater Yellowstone is also a place where people live, work, and recreate. Their occupations, their land management methods—their very presence—sometimes interfere with the relationships that bind the ecosystem together. Rivers, fires, and herds of elk travel great distances and cross administrative boundaries; no wonder there is conflict between developers and conservationists. Together, their challenge is to build healthy economies that do not compromise the natural processes on which the ecosystem's integrity depends.

Dynamic...

The eruption that shaped much of Yellowstone's central plateau is not likely to be the last and the series of calderas linking southern Idaho with today's park will surely grow. A powerful geologic force pushes from beneath, stretching the park's thin crust as if it were a lung membrane, slowly expanding, deflating, then expanding again. Are these recent events random or indicative of broader patterns? As North America drifts southwestward over the hot spot, is Yellowstone's unique hydrothermal display inching its way toward the park boundary and beyond?

...Ecosystem Without Parallel

Each of Greater Yellowstone's aspects alone—its volcanic history, its wildlife, waterfalls, and geysers—would justify park designation. Together they constitute one of the earth's most diverse and dynamic natural regions.



Survival of the Fittest
oil, 1993
Brett Wallace
age 18
Oklahoma

Flight
watercolor, 1995
Jenny Butcher
age 14
Wyoming

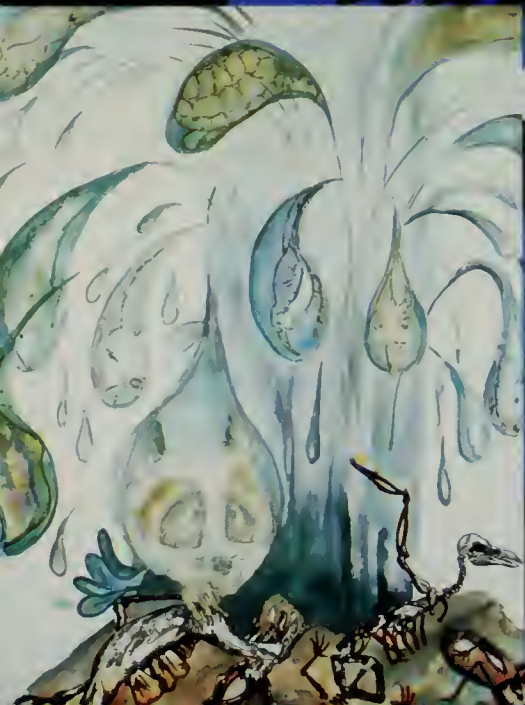


*An eagle from his nest is watching
A wolf that roams below.
He spreads his wings and off he glides
With a cry that's soft and low.*

*The wolf looks up and sees the speck,
As he looks for his daily meat.
And wonders what it's like to soar so high,
No ground beneath your feet.*

Soar
1992
Holly Foster
age 12
Idaho

Yellowstone: Geyser of Life
watercolor & ink, 1993
Matt Thornhill, age 16
West Virginia



ENDANGERED SPECIES



Silence in the Shade
block print, 1995
Solomon Woras
age 12
Idaho

Signs of Instability

If the biota, in the course of aeons, has built something we like but do not understand, then who but a fool would discard seemingly useless parts? To keep every cog and wheel is the first precaution of intelligent tinkering.

Aldo Leopold

Extinction

The history of life on earth is punctuated by periods of explosive speciation. The fossil record suggests that unique life forms often evolved during sporadic bursts of invention as they adapted to new and changing environments. The burgeoning of multicelled marine creatures in the early Cambrian and the radiation of land plants some 400 million years ago are just two episodes of mind-boggling biological diversification.

But the demise of species has been as common as their birth. Evidence also reveals periods of abrupt widespread extinction during which more than half of the planet's existing marine and land species perished. Massive volcanic explosions and random impacts of comets and meteorites could have triggered chemical and climatic change that Permian fishes and Cretaceous reptiles could not survive. Mass extinctions have been rare, though, and their effect has generally been outpaced by the evolution of new species.

Today, our planet is experiencing mass extinction. Of serious consequence to the biosphere—the earth's zone of life—is the unnatural pace of current extinctions arising from human activity.

Ecosystems

Our national parks and refuges used to be sufficiently remote to provide safe haven for native species. We now understand that wilderness parks like Yellowstone are important, but small, parts of ecosystems that meet the living conditions necessary to sustain healthy populations of even sensitive or less abundant species.

Endangered species, like miners' canaries, may signal that an ecosystem is unhealthy. They often perform singular roles that help maintain the stability of natural communities. If we eliminate these vital organisms, an ecosystem begins to experience irrevocable loss.

What was once continuous wildlife habitat is fragmented into smaller and smaller islands. Inbreeding within isolated populations can result in diminished reproduction and resistance to disease. Organisms that specialize in using certain foods or habitats may not rebound from stresses caused by the absence of specific prey, severe weather, or the introduction of exotic species that compete with them. Thread by thread an ecosystem unravels.



At What Price?
papiermâché, 1995
Amy Bostel, age 11
Wyoming

Biodiversity

The relative stability of wildlife communities increases with their biological diversity—a measure of the variety of living things. When we disturb breeding grounds, poach rare animals, or interrupt ecological processes like plant succession or water cycling, the natural and legal safety nets protecting endangered species tear.

Future advances in medicine, engineering, and agriculture may indeed lie with a yet unknown organism. But aside from the utilitarian view, do species have intrinsic value and a right to exist? When tampering with the processes that connect microbes, plants, and animals, might we unwittingly dismantle our own life support?

Conflicting Values

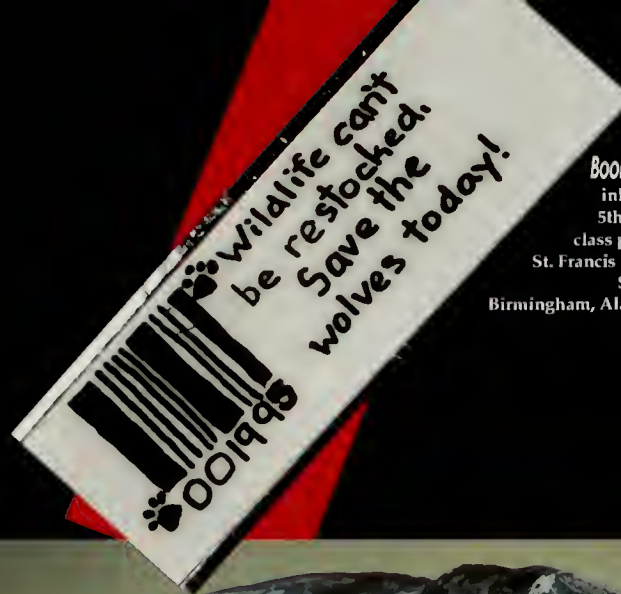
Saving endangered species often requires preserving habitat critical to their survival—a thorny issue when protection restricts recreation and economic development. Which costs are acceptable? Which are not?

Questions regarding compromise abound. Does the existence of a thriving aerie of eagles compare with the tangible dollar value of a waterfront housing development? What happens to a vulnerable trout species threatened by a proposed irrigation or power project? How do the ecological, cultural, aesthetic, and scientific values of preserving endangered species benefit people? When do they outweigh the economic value of a species or its habitat?

The near extinction of many North American birds and mammals was an unintended consequence of human activity. Eradication efforts aimed at rodents in livestock range inadvertently wiped out black-footed ferrets, highly specialized predators of prairie dogs. Demand for fashionable feathers and lead poisoning from sinkers and birdshot imperiled Yellow-



Grey Wolf
papiermâché
& tempera, 1995
Mike Pollard, age 11
North Dakota



Bookmarks
ink, 1995
5th grade
class project
St. Francis Xavier
School
Birmingham, Alabama

Ferret, Eagle, Wolf, Bobcat
ink, 1995
Tim Carlin, age 17
Montana



*There is something I must say
Something must be done
Before I become extinct
A battle must be won!*

*The fight against extinction
Is important to me
If nothing is soon done,
Extinct is what I'll be.*

*I am the rarest mammal
In the U.S.A.
A change must be made
And must be made today.*

*That's what I had to say
And everything was true
Believe what I said
Do what I said do.*

*There is something I must say
Something must be done
Before I become extinct
A battle must be won!*

A Ferret's Rap, 1995
Kyonda Cooper, age 14, Louisiana



Bear and Dove
mixed media, 1995
Brian Mason
Ryan Thompson
Tyler Carpenter
Jeremy Howell
Scott McDonald
Thomas Cherington
ages 10-11
Wyoming

stone's trumpeter swans for decades. Dredging of wetland nesting sites, overharvest, and DDT contamination severely reduced populations of cranes, peregrine falcons, ospreys, and pelicans.

Predators like grizzlies, wolves, and eagles carry mixed reputations today—maligned on the one hand for destroying private property, revered on the other as symbols of wild, open America. Like the recovery of bison in the 1890s, conservationists now try to secure the future of controversial endangered species in Yellowstone, a place where all native animals and plants are protected.

The Endangered Species Act

In 1973, Congress passed the Endangered Species Act, a law known as the world's most powerful tool for preserving the diversity of life. Its aim is to prevent the extinction of species. Enforcement measures protect animals and plants federally listed as endangered with extinction or threatened with becoming endangered in the foreseeable future. Steps must be taken to restore viable populations of listed species by safeguarding remaining individuals and their habitat.

But a powerful law does not ensure a species' future. As more people compete for land and resources, and money and expertise are diverted, giving protection to declining species becomes a challenge. Some animals became extinct after they were officially listed as endangered; others surely disappear before they are even discovered.

Dinosaurs once found Yellowstone's lush shoals to their liking. Redwoods once thrived in the warm, humid valleys between its volcanoes. As Yellowstone's landscape and climate have changed, its life forms have had to adapt or perish. Should we care if some of Yellowstone's present-day species are dangerously close to extinction?

Ode to the Wolf
laserwriter print, 1990
Alexis Ellwood
age 14
Minnesota

*Silhouette of a solitary wolf
Against the crystal light of a winter moon
Once I freely roamed these northern lands
Striking fear in all I preyed.*

*My ancient howl mourning to the night
Made many a traveler's blood run cold;
The howl is now a precious thing
For the lonely cries are few.*

*Man has forever scorned and labeled me,
Stealing the lands I used to call home;
Many rules they've made and enforced
Never kind enough to think of my need.*

*I have grown shy and alone
Trusting and keeping faith in no one,
The glaring eye of those who would destroy me
Will never pierce my own battered spirit.*

Silhouette
1990
Greg Copp
age 15
Montana



Coming Full Circle

On a brisk, cloudy day in January, 1995—and well into the night—a family of six wolves at Crystal Bench and a mother and daughter pair at Rose Creek, remained separated and confined within metal transport kennels in northern Yellowstone.

Until then they had known only the wilderness taiga of their home territories in Canada. There, the packs had hunted elk, moose, and deer, interacted with grizzlies, coyotes, and ravens, and lived as wild wolves will. In many ways their lifestyle resembled that of the wolves which once ranged through Yellowstone. Now they were in a foreign land under challenging circumstances, oblivious to the politics that surrounded their controversial introduction to Yellowstone.

Restoration

It had taken twenty years of oftentimes contentious public debate, scientific research, environmental impact statements, and consultation with officials and legislators from adjacent states. But on this winter day the mandate of the Endangered Species Act received a substantive reply: restoration of a viable wolf population to a wolf-less Yellowstone had begun.

But now the wolves had to wait, having already spent most of two days within 2 by 5 feet transport boxes. Since their capture in Alberta, they had been tranquilized and caged, flown to Montana, cleared through customs, and trucked

to Yellowstone where they inched through the park's Roosevelt Arch during a scheduled photo opportunity. Finally at midnight, with immediate legal challenges put to rest, the cage doors opened—still within pens—to a cloudless Yellowstone sky.

At an earlier press conference Secretary of the Interior Bruce Babbitt, heralded the significance of the day's event, praising the Leopold Report as the beacon that had guided the reintroduction effort:

Every American should be able to come see Yellowstone as it was seen by Native Americans (and) by Lewis and Clark as they came across the continent. With the restoration of wolves we are within inches of putting together a vignette, complete in every detail and with every large species of primitive America. It is an important statement about who we are, a chance to create a landscape and a park through which our kids will see the best of America.

Mollie Beattie, Director of the U.S. Fish and Wildlife Service, followed Secretary Babbitt:

Perhaps we came today to the end of a process that started back in the early part of this century when many American conservationists began to realize that natural things were interrelated and that you could not fool around with parts of the system and not have impacts on other parts.

One of the most eloquent writers, most eloquent conservationists, and most eloquent hunters was a man named Aldo Leopold, who discovered the interconnection of things. Yesterday was Aldo Leopold's birthday. Yesterday was the day when the wolves were brought into this country. Happy birthday, Mr. Leopold.

A deep chesty howl echoes from rimrock to rimrock, rolls down the mountain, and fades into the far blackness of the night. It is an outburst of wild defiant sorrow....

Aldo Leopold

Hunter

Wolves must hunt to survive. They form packs to overcome the many handicaps that confront a lone hunter in the wild. Wolves in these cooperative family units are more efficient hunters of large animals. Though always alert for signs of prey within its territory, even the pack's collective skill seldom results in success. Often pack members must endure long periods of hunger.

Shadow

In the minds of medieval Europeans, the wolf became a symbol of bestial force and a haunting reminder of our primitive origin. Elusive and mysterious, the phantom wolf epitomized all that was uncertain and uncontrollable, including the sinister wilderness in which it thrived. No wonder medieval folklore portrayed wolves as ravenous minions of Satan—the Devil's Dog.

The night remains a crucible of mysterious events that invigorate the imagination. Night-time is a typical setting for the imaginary wolf, the wolf whose brain might, as was once believed, expand and diminish with moon phases.

Spirit

To tribal cultures whose experience was primarily with the animal world, the power of the mask was a living reality. Through its ritual use, a shaman could celebrate mystical relationships with animal spirits. Transforming into the form of the wolf enabled the magician mask-wearer to reaffirm kinship with it and assure tribal cooperation that would be modeled after the wolf pack's venerated example.

Twilight in Yellowstone
watercolor, 1990
J.J. Adamson, age 18
Virginia



Winter Wolves
acrylic, 1990
Missy McKibben
age 16
Colorado



The Lone Wolf
oil pastel, 1990
Jason Vance
age 17
Utah

Wolf
mixed
media, 1992
Paige Saunders
age 10
Montana



Wolf Who Just Ate Something
papiermâché
& tempera, 1990
Mona Birnbaum, age 12
Montana

Outlaw

In pre-Columbian America wolves were the premier predators of large, hooved mammals. But when people severely reduced wild prey, wolves were compelled to feed on domestic livestock. Soon, they exemplified a renegade's existence which agricultural lifestyles would not tolerate. Often during the ensuing war between wolves and humans, the wolf's natural survival instincts were mistakenly interpreted as cowardly, cunning, and vicious behavior.

Companion

For ages, wolves and humans have been connected. In the human mind, the wolf's howl has been variously a curse, a threat, and an inspiration. Our hunting ancestors honored the wolf as a spiritual ally, emulating its hunting skills and endurance. As a symbol, the wolf inspired a tradition of reverence for nature's beauty. But our forebears also persecuted the wolf. Human intolerance, an insatiable appetite for land, and a bias that favored game species, soon eliminated wolf populations from most of their native habitat, including Yellowstone National Park.

We will never completely know the wolf. As more land is fenced, less wolf country remains in which to retreat. Should we lose the wolf's song, our lives might appear unaffected by the passing, but the diverse beauty of our planet would diminish and our own spirit become less radiant. In time we would come to understand the extent of our connection to the wolf.

Only the mountain has lived long enough to listen objectively to the howl of the wolf... it is felt in all wolf country, and distinguishes that country from all other land.... Perhaps this is the hidden meaning in the howl of the wolf, long known among mountains, but seldom perceived among men.

Aldo Leopold



Wolf of Many Words

watercolor
& ink, 1992
Tara Caldwell
age 14
West Virginia

The Snow Hunters

acrylic, 1990
Jennifer Wickham
age 15
Oklahoma



* * *

In 1995, 14 grey wolves from Canada made the difficult trip to Yellowstone. As mandated by the Endangered Species Act and outlined by a final environmental impact statement, these wolves would be the experimental seed in the recolonization of Yellowstone. Each in its own individual way emerged from their metal transport box to explore a temporary acclimation pen. At first troubled by captivity, they soon became tolerant of their new situation. Over the next two months the wolves were held within the enclosures in an attempt to overcome their instinct to return to Canada.

In late March managers opened the three pens, each holding a pack of wolves. Reluctant to leave at first, the wolves slowly adjusted to yet another condition of change: After several weeks, the packs bolted from the vicinity of

the pens—free—in an apparent exploratory charge. Several subadult wolves split off. The packs zig-zagged across hundreds of miles of wild country north of the park.

The operation bore risks. Wolf biologists were quick to point out that managing the restoration of wolves in Yellowstone was more of an art

than a science. They fully expected unforeseen circumstances to occur. One wolf died before immigrating to the U.S. when a tranquilizer dart accidentally punctured his lung. Another was revived from a similar injury and later returned to the other members of the Soda Butte pack.

Several weeks after the Rose Creek pen was opened, the alpha female and adult male placed with her, had traversed 50 miles through wilderness and neared the town of Red Lodge, Montana. Signals from her radio collar suggested that the pair's wide-ranging travel had stopped, a good sign that they were preparing to birth pups. But within days, the male's tracking collar was found on a roadside and later its cleaned pelt and head were identified in the home of a local resident.

Given the stressful conditions of their capture, relocation, and confinement, biologists doubted successful mating and whelping would occur in the spring. Yet, under a spruce tree near Red Lodge, they found the Rose Creek mother with a healthy litter of pups. A new generation had been fathered by the wolf that was illegally killed. The following week, reduced movement also signaled denning behavior in the Soda Butte pack.

All told, Yellowstone's canine immigrants defied even conservative predictions. Biologists had felt that the Crystal Bench pack—the one group transferred intact—was the most likely of the three to produce young of the year. Instead, its wolves returned to Yellowstone's Lamar Valley to hunt elk and deer, howl in the trees, and thrill and educate thousands of curious park visitors.

Like the fires of 1988, wolf restoration in Yellowstone has its adherents and opponents. Those who take the long view are rewarded with glimpses of nature's subtle charms. Just as Yellowstone's geology has given birth to soils that have shaped both vegetative cover and the herbivores it attracts, predators like the wolf have structured prey species, making them what they are. Like the fires, too, wolf restoration is a harbinger of renewal. Having come full circle—life, through death, to birth again—another exciting chapter begins in the book of continuous change that is Yellowstone.

Wolf Ceremony
oil pastel, 1990
Michelle Spenny
age 18
Wyoming



Paint pots, mud pots,
Boiling mud water
and rotten-egg things.
What are they?
Many colored,
splattery hot,
Bubbly, gigantic pots
of really thick paint,
Not like the spitting,
messy sputtering
of mud volcanoes!
Splattering,
popping, burping,
Smelly better plug
your nose stink
Of the mud pots.

Gro Gro Gro Sh
Sneezing from a geyser
makes a rainstorm
come out of mother earth.
Spraying and spouting
warm droplets of
mineral water and puffy
clouds of steam,
How good mother earth
feels after a sneeze!

Staircases of
fragile travertine,
snowy white
with purple stripes
of vanilla cherry sherbet,
Walls of black, yellow,
brown and green.
Dripping and carving
piles of limestone,
mineral water
topping every stair,
in pools that reflect the light.
Too hot to be an animal's home.

Millions of years ago,
there was a beautiful forest
of sycamore, oak, walnut,
magnolia and dogwood.
Covered by volcanic debris,
bit by bit
they turned to stone.
On Specimen Ridge
a stone forest lay.

Yellowstone:
From A Bird's View
poems, mask &
dance, 1994
Erin Stoesz
age 10
Wyoming
(photos by
Erin's dad)

Afterword

The 1990 iMAGiNE! Yellowstone exhibit, *The Wolf*, opens at the Denver Museum of Natural History as part of a two week celebration of wolves. Staff designers and I have just completed two long days of honing text blocks, installing introductory graphics, and arranging art and nameplates. The gallery doors swing open, and I take a seat inside, content. Finis. Complete. Well almost...

A family peeks in and the parents remark, "It's children's art." Their three young companions blast off. They know what is here. They fan out in different directions toward artworks that grab their attention. They touch the small nameplate below each piece.

"Cool," says the boy. He is roughly eight; too young to have submitted an entry.

He gently, perhaps unconsciously, reaches for the caption plate bearing title, artist's name, age, and home state, never removing his eyes from the artwork. For a moment the spell is broken. He glances down and then up again, down and up. He reads the age of the artist. "A ten year old did this?" he whoops. "Whoa guys, come here! Check this

41
out." The piece isn't going anywhere, but he can't wait. He dances off to contact another young artist and breathe the magic of another artwork.

The sister and girlfriend are several years older and pretend neither to hear or know the boy. But they are equally transfixed, rubbing fingers across nameplates and conjuring the venues of recognition. The blond girl covers her mouth and asks, "Guess how old?" The girl calls out, "Hey Mom, can anyone get into the exhibit?"

Each child repeats the ritual several times, circling the gallery as they are drawn to paintings, sculptures, and poems like worshippers to talismans. The kids lead, the parents follow; soon they, too, are entranced by the creations.

This practice of touching nameplates must be one way children identify with other children. Whether the artist lives in Connecticut, Kansas, or New Mexico, they meet and converse briefly, as viewer and maker, becoming familiar through the medium of art. It is a curious form of communication that occurs at each exhibit venue. I never ask the children *why*. The unfolding action is spontaneous and, in a strange way, beautiful.

Within minutes they have touched the nameplates identifying all works of interest. Maybe they travel across distance and time, from one state to another, from one age group to another, from one child's mind and heart to another. Maybe they meet youngsters who, like themselves, think Yellowstone is *awesome* and venture to express what they think and feel about it.

They share a moment, confident in their understanding of each other, not aware of the circumstances that actually separate them. Together they celebrate a magical place called Yellowstone.

David Cowan



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